SCOPE OF THE METHOD

<table>
<thead>
<tr>
<th>The Method relates to</th>
<th>Human health</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Method is situated in</td>
<td>Regulatory use - Routine production</td>
</tr>
<tr>
<td>Type of method</td>
<td>In vitro - Ex vivo</td>
</tr>
<tr>
<td>This method makes use of</td>
<td>Animal derived cells / tissues / organs</td>
</tr>
<tr>
<td>Species from which cells/tissues/organs are derived</td>
<td>Bovine</td>
</tr>
</tbody>
</table>

DESCRIPTION

Method keywords
In order to find a solution for the center-weighted opacity reading associated with the OP-KIT opacitometer, a prototype of a laser light-based opacitometer (PLLBO) allowing better measurement of opacities was developed (Van Goethem et al., 2010; Annex 1). The technical optimization and optical characteristics of this device can be found in the paper by Verstraelen et al. (Verstraelen et al., 2013; Annex 2). The LLBO uses a monochromatic laser light source and has the advantage of analysing the complete corneal surface, and is therefore able to detect more efficiently opaque spots located around the periphery of the excised corneas. The different devices result in a different read-out and different threshold values that distinguish between the different irritation categories (Verstraelen et al., 2013, 2018).

Lab equipment

Opacitometer

Method status

Currently submitted for further validation by an external party (e.g. OECD, EURL ECVAM,...)

PROS, CONS & FUTURE POTENTIAL

Advantages
Laser (monochromatic) light;
One light source (one beam);
The whole cornea is analysed;
Linear;
The width of the light beam can be adjusted.

**Modifications**

Non planned.

**REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION**

**References**


**Associated documents**

**PARTNERS AND COLLABORATIONS**

**Organisation**

**Name of the organisation** VITO

**Department** Health
Country: Belgium
Geographical Area: Flemish Region